

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/PL2004/000089

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 F16B21/08 F16B19/00 F16B15/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 F16B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 800 109 A (CARRUTHERS ET AL) 1 September 1998 (1998-09-01) figures 1-5	1,2,4,5, 7,18-20
X	US 5 306 098 A (LEWIS ET AL) 26 April 1994 (1994-04-26) the whole document	1,2,4, 18-20
X	US 4 381 633 A (MACLEOD ET AL) 3 May 1983 (1983-05-03) figures 1-11	1,2,5,7
X	US 4 395 174 A (FREEMAN ET AL) 26 July 1983 (1983-07-26) the whole document	1,2,8,10
X	US 5 907 891 A (MEYER ET AL) 1 June 1999 (1999-06-01) figures 1,2	1-4,9

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

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- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \* & \* document member of the same patent family

Date of the actual completion of the international search

26 January 2005

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01/02/2005

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5800109	A	01-09-1998	NONE	
US 5306098	A	26-04-1994	NONE	
US 4381633	A	03-05-1983	CA 1181968 A1	05-02-1985
US 4395174	A	26-07-1983	NONE	
US 5907891	A	01-06-1999	CA 2262157 A1	24-08-1999
			EP 0937899 A1	25-08-1999
			ES 2168813 T3	16-06-2002